

Supplementary Table I: RNA-dependent DExD/H-box ATPases ('RNA helicases')

Name	Type / Length (aa)	Orthologue (H. sapiens)	Process	Activity (in vitro)	Particle	Phenotype	Functional environment	References
Dbp4	DEAD / 770	DDX10	40S	RNA-stim. ATPase	SSU / 90S	†, A0-A2 block	U14 snoRNA U14 release (?)	[1-3]
Dbp8	DEAD / 431	DDX49	40S	RNA-stim. ATPase	SSU / 90S (weak)	†, A0-A2 block	ATPase stimulated by Esf2	[4, 5]
Fal1	DEAD / 399	DDX48 (eIF4AIII)	40S	nd	not found	†, A0-A2 block	Lcp5	[6, 7]
Rok1	DEAD / 564	DDX52	40S	RNA-stim. ATPase	SSU / 90S	†, A0-A2 block	snR10, Gar1, Rrp5 snR30 release (?)	[1, 8-13]
Rrp3	DEAD / 501	DDX47	40S	RNA-stim. ATPase	SSU / 90S	†, A0-A2 block	not explored	[1, 14]
Dhr1	DEAH / 1267	DHX37	40S	nd	SSU / 90S	†, A1, A2 block	U3 snoRNA	[15]
Dhr2	DEAH / 735	none	40S	nd	SSU / 90S (weak)	†, A0-A2 block	not explored	[15]
Dbp2	DEAD / 546	DDX5 (p68) / DDX17 (p72)	60S / (40S) NMD	nd	pre-60S	ssg, general processing delay / low 60S and 40S	not explored	[16]
Dbp3	DEAD / 523	none	60S	RNA-stim. ATPase	90S / early pre-60S	sg, 27SA2 accumulation	not explored	[1, 17]
Dbp6	DEAD / 629	DDX51	60S	nd	early pre-60S	†, 27S down	Npa1, Npa2, Nop8, Rsa3 sub-complex Rpl3, Rsa1, Dbp9	[18-21]
Dbp9	DEAD / 594	DDX56 (NOH61)	60S	DNA-stim. ATPase	pre-60S	†, 27S down	Dbp6	[21, 22]
Dbp7	DEAD / 742	DDX31	60S	nd	pre-60S	ssg, low 27S delay 27S>25S	Dbp9 Dbp6 sub-complex	[18, 20, 23]
Mak5	DEAD / 773	DDX24	60S	nd	pre-60S	†, low 27S delay 27S>25S	not explored	[24]
Dbp10	DEAD / 995	DDX54	60S	nd	pre-60S	†, block 27SB>25S	Nug1	[25, 26]
Drs1	DEAD / 752	DDX27	60S	nd	pre-60S	†, block 27SB>25S	Nop7	[27, 28]
Spb4	DEAD / 606	DDX55	60S	nd	pre-60S	†, block 27SB>25S	Pab1 (?)	[29, 30]
Mtr4 / Dob1	DExH / 1073	SKIV2L2 (hMTR4)	60S	RNA-stim. ATPase / duplex unwinding	transient assoc.	†, 7S accumulation	exosome TRAMP4/5	[31-35]
Has1	DEAD / 505	DDX18	40S/60S	RNA-stim. ATPase / duplex unwinding	90S / pre-60S	†, A0-A2 block delay 27SB>25S	U3/U14 release (?)	[36-38]
Prp43	DEAH / 767	DHX15	40S/60S splicing	RNA-stim. ATPase / duplex unwinding	90S / pre-60S / pre-40S	†, A0-A2 delay Low pre-/mature rRNAs	Ltv1, Nob1, Pfa1/Sqs1 Pxr1/Gno1 (?)	[39-43]

The proteins marked by † are essential for growth, however, the *dbp2Δ* and *dbp7Δ* null mutants display a severe slow-growth phenotype (ssg), while the slow-growth defect (sg) of the *dbp3Δ* null mutant is not very pronounced. Abbreviations: nd, not determined, RNA-stim. ATPase, RNA stimulated ATPase; SSU, small subunit processome specified by U3 snoRNA presence; NMD, nonsense-mediated mRNA decay; TRAMP4, Trf4-Air1-Mtr4 polyadenylation complex; TRAMP5, Trf5-Air2-Mtr4 polyadenylation complex.

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